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| <b>Title: Waste Disposal Guidelines for Gram Staining Wastes</b> | <b>Document No.:</b> CH-008A                 |
|  | <b>Revision No.:</b> 00 <b>Date:</b> 6-16-10 |
|  | <b>Approved By:</b> AI Swavy                 |

- 1.0 Purpose:** The purpose of this policy is to provide guidance for disposing of wastes generated as a result of gram staining procedures performed in a laboratory setting. These wastes are considered hazardous by the USEPA and must be properly collected.
- 2.0 Scope:** This policy applies to all university laboratories, research areas, and any other spaces serviced by UB Environment, Health and Safety.
- 3.0 Applicable Guidelines:** Refer to Hazardous Chemical Waste Management Guidebook.
- 4.0 Responsibilities:** The primary responsibility for following this policy rests with the principal investigator or supervisor of the area where this procedure is being performed. Any laboratory researcher, student, or other employee who do gram staining and manage hazardous wastes in these areas must be trained and made aware of this policy. If there is any doubt or question as to the applicability of this policy to their specific area, contact the EHS service request line at 829-2401 for further assistance.
- 5.0 Definitions:**
- 5.1 Gram staining:** Gram staining is used to differentiate bacterial species into two large groups based on their chemical and physical properties. Generally three chemical reagents are used during the process; a crystal violet indicating solution, ethanol, and fuchsin indicating solution. Water may also be used as a rinsing agent. The gram staining process requires a microscope slide inoculated with a sample possibly containing bacteria to be treated and rinsed a number of times using the reagents listed above.
- 5.2 USEPA hazardous waste:** A waste that poses substantial or potential threats to public health or the environment. These wastes must be collected and disposed per strict Environmental Protection Agency (EPA) regulations. Ethanol in particular is a flammable material and must be collected as a hazardous waste.
- 6.0 Procedures:**
- 6.1** The gram staining process must be done over a pan or tray of some sort to capture all liquid being used in the procedure. A suggestion would be to use a plastic ice cube tray.
- 6.2** Place the microscope slide over the tray to collect wastes generated by the various treatments and rinses required as part of the gram stain process.
- 6.3** After the staining procedure is completed, transfer the waste accumulated in the tray to a suitable hazardous waste container such as a glass bottle with a tight fitting screw top. Affix a UB hazardous waste label identifying the contents to the container prior to placing any waste in it.
- 6.4** Follow existing procedures outlined in the EHS Hazardous Chemical Waste Management Guidebook by placing the container in the lab's hazardous waste satellite accumulation area. Contact EHS for disposal.

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**7.0 Document Management:** This procedure shall be reviewed once every two years, or as changes require.

**8.0 Associated UB Documents:**

8.1 *Campus Commitment to Safety*, University at Buffalo, Office of the Provost, Office of the Senior Vice President, April 3, 2001.

**9.0 Associated EH&S Documents:**

9.1 Hazardous Chemical Waste Management Guidebook

**10.0 Document Revision History:**

| Revision | Section(s) Changed | Change(s) Made: | Date |
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